

What is claimed is:

1. A lead assembly comprising:

a flexible lead body extending from a proximal end to a distal end, the lead body
5 including two or more conductors disposed therein;

the two or more conductors including a first conductor and a second conductor,
the first conductor is co-axial and non co-radial with the second conductor;

an electrode assembly including at least one extendable and/or retractable
electrode electrically coupled with at least one conductor; and

10 the second conductor disposed within the first conductor, the second conductor
including a coating of insulation on the second conductor.

2. The lead assembly as recited in claim 1, wherein the second conductor comprises
one or more filars in a coiled configuration, and the one or more filars are coated with
15 insulative material.

3. The lead assembly as recited in claim 1, further comprising an insulative sleeve
disposed between the first conductor and the second conductor.

20 4. The lead assembly as recited in claim 3, wherein the insulative sleeve comprises
a tube of material disposed between the first conductor and the second conductor.

5. The lead assembly as recited in claim 3, wherein the insulative sleeve is
comprised of a non-silicone material.

25 6. The lead assembly as recited in claim 1, further comprising redundant insulation
disposed between the first conductor and the second conductor.

7. The lead assembly as recited in claim 1, wherein the first conductor comprises one or more filars in a coiled configuration, and the one or more filars are coated with insulative material.

5 8. The lead assembly as recited in claim 1, further comprising a means for facilitating rotation of the second conductor relative to the first conductor.

9. The lead assembly as recited in claim 1, further comprising a coating of insulation on the first conductor.

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10. The lead assembly as recited in claim 9, wherein the coating of insulation on the first conductor comprises ETFE.

11. A lead assembly comprising:

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a flexible lead body extending from a proximal end to a distal end, the lead body including two or more conductors disposed therein;

the two or more conductors including a first conductor and a second conductor;

an electrode assembly including at least one extendable and/or retractable

electrode electrically coupled with at least one conductor;

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a tubular insulative sleeve disposed between the first conductor and the second conductor; and

the second conductor disposed within the first conductor, a coating of insulation on an outer surface of the first conductor or the second conductor.

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12. The lead assembly as recited in claim 11, wherein the first conductor is co-axial and non co-radial with the second conductor.

13. The lead assembly as recited in claim 11, wherein the first conductor and the second conductor include a coating of insulative material thereon.

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14. The lead assembly as recited in claim 11, wherein the second conductor is rotatable relative to the first conductor.

15. The lead assembly as recited in claim 11, wherein the first conductor has a
5 coiled configuration having an outer coil diameter, and the first conductor has an outer
filar diameter, and a coating of EFTE or PFTE is disposed on the outer filar diameter.

16. The lead assembly as recited in claim 11, wherein the second conductor has a
coiled configuration having an outer coil diameter, and the second conductor has an outer
10 filar diameter, and a coating of EFTE or PFTE is disposed on the outer filar diameter.

17. The lead assembly as recited in claim 11, wherein the first conductor has a
coiled configuration having a first outer coil diameter, and the first conductor has a first
outer filar diameter, the second conductor has a coiled configuration having a second
15 outer coil diameter, and the second conductor has a second outer filar diameter, and a
coating of EFTE or PFTE is disposed on the first outer filar diameter and the second
outer filar diameter.

18. A method comprising:
20 providing a second conductor having a coiled configuration having a second
outer coil diameter, and the second conductor having a second outer filar diameter,
providing insulation on the second outer filar diameter;
disposing the second coiled conductor within a first coiled conductor to form a
conductor assembly, where the first coiled conductor is non co-radial with the second
25 coiled conductor;
disposing the conductor assembly within a flexible lead body;
coupling an electrode assembly with the first and/or the second conductor, the
electrode assembly including at least one electrode; and
extending and/or retracting the at least one electrode from and/or within the
30 flexible lead body.

19. The method as recited in claim 18, further comprising disposing insulative tubing between the first conductor and the second conductor.

20. The method as recited in claim 19, where the first conductor includes a first
5 outer filar diameter, and the method further comprises disposing insulation on the first outer filar diameter of the first conductor.

21. The method as recited in claim 18, further comprising disposing polyimide tubing between the first conductor and the second conductor.

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22. The method as recited in claim 18, further comprising disposing polyurethane tubing between the first conductor and the second conductor.

23. The method as recited in claim 18, further comprising heat shrinking PTFE or
15 ETFE on the second outer coil diameter.

24. A method comprising:

providing a second conductor having a coiled configuration having a second
outer coil diameter, and the second conductor having a second outer filar diameter,

20 disposing the second coiled conductor within a first coiled conductor to form a conductor assembly, where the first coiled conductor is non co-radial with the second coiled conductor;

disposing the conductor assembly within a flexible lead body;

25 coupling an electrode assembly with the first and/or the second conductor, the electrode assembly including at least one electrode; and

disposing insulative tubing between the first conductor and the second conductor.

25. The method as recited in claim 24, further comprising extending and/or
30 retracting the at least one electrode from and/or within the flexible lead body.

26. The method as recited in claim 24, further comprising providing insulation on the second outer filar diameter.

27. The method as recited in claim 26, further comprising heat shrinking PTFE or
5 ETFE on the second outer coil diameter and over the insulation.

28. The method as recited in claim 27, where the first conductor includes a first outer filar diameter, and the method further comprises disposing insulation on the first outer filar diameter of the first conductor.

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29. The method as recited in claim 24, where the first conductor includes a first outer filar diameter, and the method further comprises disposing insulation on the first outer filar diameter of the first conductor.